Environmental Restoration Project



ER Site No. 147: Bldg 9925 Septic Systems

ADS: 1295

Operable Unit: Septic Tanks and Drainfields

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Site History

ER Site 147 includes the two septic systems to the northwest, and a third septic system to the south of Bldg. 9925. Bldg. 9925, the Coyote Test Field Headquarters, was built in 1959 and is located near the intersection of Lovelace Road and Isleta Boulevard, about 1.6 km (1.0 mi) east of the Solar Test Facility. A machine shop in the north end of the building occasionally used small quantities of organic compounds, but there is no history of discharges to the septic systems. The septic system furthest north was installed to replace the other two systems.

There are two restrooms with floor drains and two showers in Bldg. 9925. There is no floor drain in the machine shop. The abandoned septic system northwest of Bldg. 9925 consists of a 5,700 L (1,500 gal) septic tank, located about 29 m (95 ft) northwest of the northwest corner of the building, with a drainfield consisting of six 12.3-m (40-ft) distribution lines immediately west of the tank. The new septic system northwest of Bldg. 9925 consists of a 5,700-L (1,500-gal) septic tank located northwest of, and adjacent to the abandoned tank, and is plumbed to a new drainfield consisting of six 15.4-m (50 ft) parallel drainlines located about 80 m (260 ft) north of the building, outside the perimeter fence. This new septic system is no longer in use. A third abandoned septic tank (2,850-L [750-gal]) was plumbed to two parallel 20 m (65 ft)drainlines which are located to the south of the building, under the Optical Range Road pavement. This septic system was abandoned in the 1960s during construction of an addition to Bldg. 9925. The septic tank was filled with soil. Estimated effluent volumes for the abandoned systems range from 3,800 L/day (100 gal/day) to 15,200 L/day (4,000 gal/day).

The site is estimated to be about 9.2 to 27.7 meters (30 to 90 ft) above the regional water table.

Constituents of Concern

The constituents of concern at the site include organic compounds (acetone and methanol), explosives residue, and depleted uranium. A composite aqueous sample obtained from the two north septic tanks in 1991 detected TCE, cadmium, copper, lead, and total phenolic compounds.

Current Hazards

No known surface or subsurface hazards have been identified, based on environmental soil and soil-gas sampling that has been conducted at the site.

Current Status of Work

Septic tank sampling for waste characterization was performed in 1994.

A passive soil gas survey was completed in the summer of 1994. BTEX and aliphatic compounds were detected but these volatile organic compounds probably originated from motorized equipment and vehicles stored in the yard west of Bldg. 9925. Soil gas analyses at the septic system south of the facility detected BTEX, however, the entire area is covered by asphalt and there were existing leaks of oil from parked automobiles at the time of the survey. None of the subsequent soil samples detected any organic constituents.

Waste was removed from the two septic tanks west of the building in 1995, and the empty tanks were inspected by NMED in January 1996. The tanks were decontaminated, and concrete samples were collected from the tanks to verify that no COCs remain. The tanks were then backfilled with clean soil. The abandoned drainfields drainlines are still present at the site. The west system drainlines are buried at an average depth of 3.5 feet below the surface, and those for the north septic system (located north of the Bldg. 9925 facility fence) are an average of 7.5 feet deep.

Soil sampling around the three septic tanks and in the three drainfields was completed in late 1994.

A confirmatory sampling NFA proposal for this site was submitted to the NMED/HRMB in May 1997. NFA comments were received from NMED/HRMB in June 1999, and SNL/NM replied to the NMED comments in September 1999. NMED issued a second Request for Supplemental Information (RSI) in December 1999, and SNL/NM responded to this second RSI also in December 1999. Also, as requested by NMED, five additional high explosives soil samples were collected at five locations in the three drainfields at this site on Oct. 9, 2002.

Future Work Planned

NMED requested, and SNL/NM collected 5 additional soil samples at five locations in the two drainfields west of Building 9925. These samples have been analyzed for HE compounds by EPA Method 8330. Following evaluation of the sample data an RSI response reporting the results will be submitted to NMED.

Waste Volume Estimated/Generated

Waste volumes generated at this site include 3 drums of mixed waste and 13 drums of radioactive waste.

Information for ER Site 147 was last updated Jan 17, 2003.